

mammal, wherein said peripheral tissue comprises a sensory receptor.

32. (New) The cell of claim 31, wherein said peripheral tissue comprises an olfactory epithelium.

33. (New) The cell of claim 31, wherein said peripheral tissue comprises a tongue.

34. (New) The cell of claim 31, wherein said peripheral tissue is from an adult mammal.

35. (New) The precursor cell of claim 31, wherein said cell is a neural stem cell.

36. (New) The precursor cell of claim 31, wherein the cell is a neural progenitor cell.

37. (New) The precursor cell of claim 31, wherein said cell expresses glutamic acid-decarboxylase.

*Sub 6* 38. (New) The precursor cell of claim 31, wherein said cell expresses nestin.

39. (New) The precursor cell of claim 31, which under appropriate conditions can be differentiated into a neuron, an astrocyte, or an oligodendrocyte.

40. (New) The precursor cell of claim 31, wherein said cell is multipotent.

41. (New) The precursor cell of claim 31, said cell transfected with a heterologous gene.

42. (New) The precursor cell of claim 41, wherein said gene encodes a trophic factor.

43. (New) A mitotic cell that is the progeny of a precursor cell isolated from a peripheral tissue of a postnatal mammal, wherein said peripheral tissue comprises a sensory receptor.

44. (New) A differentiated cell that is the progeny of a precursor cell isolated from a peripheral tissue of a postnatal mammal, wherein said peripheral tissue comprises a sensory receptor.

45. (New) The differentiated cell of claim 44, wherein said cell is selected from the group consisting of a neuron, an astrocyte, and an oligodendrocyte.

46. (New) A pharmaceutical composition comprising a mitotic or differentiated cell that is the progeny of a precursor cell isolated from a peripheral tissue of a postnatal mammal, wherein said peripheral tissue comprises a sensory receptor, and a